



**Arizona Department of Health Services  
Bureau of EMS & Trauma System / Bureau of Public Health Statistics  
Trauma Registry Users Group (TRUG)**

**Trauma Registry Users Group (TRUG) Meeting Minutes  
Tuesday, August 26, 2008 9:30 a.m. – 11:30 a.m.  
Location: Arizona Dept. of Health Services  
150 North 18<sup>th</sup> Avenue Phoenix AZ 85007  
5th Floor – 540A Conference Room  
Contact: Anita Ray Ng 602-542-1245 raya@azdhs.gov**

**Attendees:**

Bill Ashland	Tammy Borrego	Vicki Conditt	Kathi Coniam	Dawn Christean
Lillian Duncan	Marisue Garganta	Michelle Guadnola	David Harden	Valerie Hill
Lynn Hodges	Claire Holmes	Xan Hummel	Rose Johnson	Alice Magno
Cynthia Marks	Melissa Moyer	Donna Quay	Anita Ray Ng	Genia Sims
Erzsebet Szabo	Cristina Wong	Georgia A. Yee	Heather Young	

- A) Introduction of TRUG members – Welcome new TRUG members! ☺
- 1) Summit Healthcare Regional Medical Center joins us as the first designated Level IV trauma center.
  - 2) John C. Lincoln Deer Valley Hospital is working towards Level IV Designation.
- B) Education/Training
- 1) Trauma One Customization Training – September 8-9 – for advanced users. Thank you to Maricopa Medical Center for coordinating the computer room to accommodate this training!
  - 2) ICD-9-CM Injury Diagnoses & E-code training options – The scheduled ICD-9-CM training was cancelled by the contractor due to disagreement with state contract language. Other training options will be investigated.
  - 3) ASTR website – The Bureau of EMS & Trauma System now has a section of the website dedicated to the trauma registry. Important ASTR documents (including the most recent version of the data dictionary) are posted on the website for easier TRUG reference.
    - a) Link to the website: <http://www.azdhs.gov/bems/TraumaRegistry.htm>
    - b) The suggestion was made to add registrar resources to the website. David Harden reported that it may be helpful to post maps to help users locate the nearest city when only a milepost is given on the EMS run sheet. ASTR will continue to update the website as resources become available.
- C) 2008 Data Validation Tool
- 1) Status of data validation tool – Trauma Registry Manager is documenting the necessary validation information to provide to the software vendor. If your hospital has discovered any common errors in the trauma data, please advise Trauma Registry Manager so they can be added to the validation tool.
  - 2) Future hospital data quality checks – case number audits, inter-rater reliability – These types of quality enhancement measures are indicated in the trauma registry rules. These activities will be pursued by ADHS in the future, but for now, hospitals are encouraged to continue their own quality assurance processes.
- D) ASTR 2008 Required Data Elements

- a) Any outstanding data entry questions?
  - (i) Prehospital data entry / prehospital vital signs
    - (a) Discussion was held regarding first recorded prehospital vital signs. NTDS wants only the first vitals from the SCENE exported to them and if those vitals are not available, they want the first entry for prehospital vitals flagged as Not Documented (\*ND). If scene vitals are not available, some hospitals have been entering the first recorded vitals from the referring EMS transporter. The database does not have a field to identify which set of prehospital vitals are being entered and this prevents us from being able to identify and fix the data already entered for 2008. Decision was made that hospitals will finish out 2008 data entering as they have been. At the next meeting we will discuss whether a care phase or new field needs to be added to link the prehospital vitals to a specific provider.
  - (ii) Trauma Registry Manager emailed NTDS requesting definitions for their "Alternate Home Residence" choices. NTDB staff indicated they will work on clarification.
- b) Lancet database updates that all hospitals should have received:
  - Zip Code Updates – Hospital responses indicate that not all hospitals received the zip code update in 2008. Anita will email Lancet for the update file.
  - AIS 2005 picklist updates – Lancet is editing problems with the AIS 2005 picklist. More information will follow by email.
  - State Unique ID field – This is the unique record identifier that will be used to communicate between hospitals and ASTR regarding data quality checks. The first four letters refer to the reporting hospital's Site ID in Trauma One. The number following the Site ID is your hospital's Lancet Account Number for that record. You can open the record by searching for that Lancet Account Number.
  - State Patient? – "Yes" for this field should be required for a record to export to ASTR. Selecting "No" will allow your hospital to capture patients that your hospital wants to track but do not meet the ASTR inclusion criteria. Please check that your export is working correctly.
  - Record Complete? – This field is not a state required field and should not affect your export. If your export requires you to enter "Yes" in order to export, please let the Trauma Registry Manager know so your import can be corrected.
  - Record Completeness check (blank fields) – There is a button on the discharge page to check for blank required fields. Hospitals reported to Trauma Registry Manager that the button was not updated for the 2008 changes. Anita will send out an updated blank field check and hospitals can ask Lancet to update their completeness button.
- c) Required Financial Data
  - (i) Total Charges and Reimbursements are required. Checks will be run on the financial data to ensure compliance for 2008 data.
  - (ii) Payment methods must be submitted according to the ASTR / NTDS picklist.
    - (a) The first and second "Method of Payment" picklists match the required NTDS list.
    - (b) If you are mapping data from hospital billing, you will need to confirm before export that the picklists are mapping correctly. When new insurance companies are added by hospital billing departments, they need to be mapped to an ASTR picklist choice before export.
- d) Check your data interfacing and autofills
  - (i) ASTR continues to receive invalid picklist entries, which may be due to previously set autofills. (Ex: ED Disposition = "HOME" but the ASTR picklist requires the user to specify if the patient was discharged home with services or home without services.)
  - (ii) Please check your 2008 data to make sure the values match the 2008 data dictionary.
- e) Injury Date/Time

- (i) ASTR is running a lot of reports that calculate the length of time from the date/time of injury to the ED/Hospital Arrival date/time. Please make every attempt to enter the Injury Date and Time when it is known.
  - (ii) Hospitals have indicated that the EMS run sheets are not always received or that they do not always specify the time of injury. Registrars should check both the run sheet and the hospital chart for indication of the injury time. Not Documented is allowed when the injury date or time cannot be determined. Not Documented and Not Applicable should not be used for ED/Hospital Arrival Date or Time.
- f) 2007 sub-picklists in database
  - (i) To allow for edits to the 2007 data, the 2008 system upgrades contained both 2007 and 2008 required picklist choices. TRUG determined that the 2007 picklists are no longer needed. These will be removed with a picklist update from ASTR.
- g) Reminder on the distinction between ED and Admission fields
  - (i) ED care and admission stay are differentiated in ASTR data entry. If a patient is discharged or transferred from the ED and was never admitted, the Hospital Admit Date, Hospital Discharge Date, Hospital Discharge Time, Hospital Admission LOS and Hospital Discharge Disposition should be marked as Not Applicable (\*NA).
  - (ii) All patients should have a valid entry for Final Outcome and Total Hospital LOS, regardless of admission status.
    - (a) Note: Total LOS is typically calculated as the difference between Hospital Discharge Date/Time and ED/Hospital Arrival Time. If Hospital Discharge Date is flagged as \*NA, the database should calculate the Total Hospital LOS using ED Exit Date/Time.
- E) Revised Trauma One database export instructions
  - 1) For future exports, please follow the updated Trauma One export instructions passed out at today's meeting. Unchecking both boxes on the export wizard will send all records within the date range. This will make sure ASTR receives any updates that are made through datalinks.
  - 2) Reminder: Always use ED/Hospital Arrival Date for export date range. Do not use Admit Date.
  - 3) Trauma Registry Manager will also email export instructions and post on ASTR website.
- F) Results of blank field checks – 1<sup>st</sup> quarter 2008
  - 1) Preliminary results of the blank checks were distributed today. More updates are needed to the blank check report.
  - 2) Trauma Registry Manager will update the 2008 ASTR blank field check and export the report to all hospitals.
  - 3) Hospitals should run the ASTR updated blank field check on their system to identify which fields are showing up as blank under the state variable names. Blanks could occur due to several reasons:
    - a) The data is entered in the hospital database but a system problem exists and it is not exporting correctly to ASTR.
    - b) A new data element was overlooked in the upgrade and does not exist on the data entry screen.
    - c) The data element is on the data entry screen but the field was missed by the registrar during data entry.
- G) 2008 Inclusion Criteria
  - a) Registrars have emailed questions regarding scenarios that are not clear. These inclusion questions will be addressed with AZTQ, the quality assurance committee that developed the criteria.
  - 2) NTDS/NTDB have different trauma inclusion criteria than ASTR. For example, per NTDB the single level falls should be included in the registry. TRUG members commented that including these types of injuries would increase the AZ registrar workload. For now, NTDB is not requiring hospitals or states to switch to the NTDS criteria for 2008-2009 data, but they do prefer all hospitals to capture their dataset as a minimum. Changing to the NTDB inclusion criteria would

require another rule change and the state registry rules were recently updated in 2008. Per Bureau of EMS and Trauma System recommendation, please continue to follow the 2008 ASTR Inclusion Criteria. This item can be addressed in future discussions.

- H) ASTR Quarterly Reports to Hospitals – suggestions from TRUG?
  - 1) ASTR is required to provide quarterly reports to hospitals. Currently, these reports consist of standard public reports, blank field checks, initial data quality checks and case number reports.
  - 2) If you have suggestions on any standard quarterly reports that would be useful for your hospital, please email Trauma Registry Manager.
    - a) Suggestion from one hospital: “ED Length of Stay” report with a comparison of their hospital’s data on one side and the aggregate LOS data for the other hospitals (with the reporting hospital LOS data excluded).
- I) 2009 Required Data Elements
  - 1) Do we need any changes for next year? – Discussion item moved to next TRUG meeting to allow more time for research.
- J) Question from Tuba City - Unknown diagnosis codes for DOA patients leading to a low Injury Severity Score
  - 1) The Lancet ICD-9-CM picklist has some unspecified codes that assign a severity value of 1. For DOA patients, this can result in an ISS = 1 for a patient that died upon arrival and did not have any diagnostic testing or autopsy.
  - 2) AIS coding rules do not allow entry of a 6 for the severity value solely because the patient expired.
  - 3) TRUG discussed the issue and members recognize that having incomplete diagnosis information is a problem for the ISS calculation. The decision was made that registrars will continue to enter the ICD-9 coding as they are and allow the manual ISS calculation as it is. Hospitals and ASTR will have to consider this limitation when running reports using ISS. This issue may be addressed again in the future after we are able to compare the 2008 ISS calculations.
- K) Question from John C. Lincoln – Level I required AIS 2005 and ICD-9-CM coding
  - 1) Question was raised regarding whether Level I Trauma Centers should continue to capture AIS 2005 codes and ICD-9-CM injury diagnosis codes.
  - 2) Discussion was held. Level I Trauma Centers are submitting AIS 2005 codes for funding and use the AIS ISS for their research. ICD-9-CM codes are necessary from all centers for state reporting, inclusion criteria assessment and to fulfill the NTDS requirements. ASTR Coding requirements will remain as they are. AIS 2005 and ICD-9-CM codes are required from Level I facilities. Non-Level I facilities are required to submit only the ICD-9-CM codes.
- L) Question from Banner Good Samaritan – Calculating ICU Length of Stay
  - 1) How are hospitals calculating ICU Length of Stay if the patient no longer requires ICU level of care but there is no floor bed available to discharge them to?
    - a) Discussion was held. Suggestion was to enter “Floor” as the patient’s location (on the Location page - not a state required data element). This will prevent that time from being included in the ICU length of stay calculation.
- M) ASTR Trauma Data Requests
  - 1) ASTR data requests are being received and trauma reports are being processed. Recent requests include: child firearm injuries by zip code, bicycle-related injuries, motorcycle helmet reports, ATV injuries, “golden hour” transport reports, injury occurrence by zip code, trauma system performance reports for the advisory board, ASTR standard public reports, and the annual trauma report to the ADHS Director.
  - 2) Thank you to TRUG members for submitting data and helping to improve the quality of the data. Your hard work is making these trauma data requests and research projects possible!

- N) Data Quality Note: Pedal Cycle E-codes – Pedestrians vs. Bicyclists / Motor vehicle related versus non-motor vehicle related
  - 1) Selecting the correct E-code is very important for trauma data reporting. It appears that some of the 2006-2007 bicycle-related events may have been coded as a pedestrian for the E-code field. A bicyclist is not a pedestrian, unless they are walking their bicycle at the time of injury. They should be coded as a “pedal cyclist”. In addition, there are different E-codes to specify if the pedal cycle injury did (or did not) involve a collision with a motor vehicle.
- O) Further questions, concerns or database problems to report? – None reported.
- P) Next TRUG meeting – October 23, 2008